

IN THE CLAIMS:

No claims have been canceled and no claims have been amended herein. All of the pending claims 1 through 18 are presented below. This listing of claims will replace all prior versions and listings of claims in the application.

1. (Previously presented) A heat sink for assembly with a semiconductor device component, comprising:
a heat transfer element configured to be secured to the semiconductor device component, comprising a unitary structure, and one or more passageways extending within the unitary structure, at least one of the one or more passageways including an internal portion extending along a nonlinear path.
2. (Previously presented) The heat sink of claim 1, wherein at least a portion of the heat transfer element comprises a plurality of adjacent, mutually adhered regions comprising thermally conductive material.
3. (Previously presented) The heat sink of claim 2, wherein the thermally conductive material comprises a metal.
4. (Previously presented) The heat sink of claim 3, wherein the metal comprises copper, aluminum, tungsten, or titanium.
5. (Previously presented) The heat sink of claim 2, wherein the thermally conductive material comprises a ceramic or a glass.
6. (Previously presented) The heat sink of claim 1, wherein the heat transfer element comprises a plurality of particles that are secured to one another.

7. (Previously presented) The heat sink of claim 6, wherein adjacent particles are sintered together.

8. (Previously presented) The heat sink of claim 6, wherein adjacent particles are secured together with a binder.

9. (Previously presented) The heat sink of claim 16, wherein at least some of the plurality of superimposed, contiguous, mutually adhered layers comprise sheets of the thermally conductive material.

10. (Original) The heat sink of claim 9, wherein adjacent sheets are secured together with an adhesive material.

11. (Original) The heat sink of claim 9, wherein adjacent sheets are thermally bonded together.

12. (Previously presented) The heat sink of claim 1, wherein the at least one passageway is configured to permit airflow therethrough.

13. (Previously presented) The heat sink of claim 1, further comprising a heat dissipation element adjacent to the heat transfer element and extending to a location remote from the semiconductor device component.

14. (Previously presented) The heat sink of claim 13, wherein at least a portion of the heat dissipation element comprises a plurality of adjacent, mutually adhered regions comprising thermally conductive material.

15. (Previously presented) The heat sink of claim 14, wherein the heat dissipation element includes a plurality of fins.

16. (Previously presented) The heat sink of claim 2, wherein the plurality of adjacent, mutually adhered regions comprises a plurality of superimposed, contiguous, mutually adhered layers.

17. (Previously presented) The heat sink of claim 14, wherein the plurality of adjacent, mutually adhered regions comprises a plurality of superimposed, contiguous, mutually adhered layers.

18. (Previously presented) The heat sink of claim 1, wherein the internal portion comprises an annular channel.